

NEW CLAIMS 8-19

8. A method for drying and keeping dry rolled strip up to 10 mm thickness in a delivery area of cold-rolling and strip-rolling plants, the method comprising the steps of:

arranging a partition in the delivery area for separating a damp area (35) of the rolling mill from a dry area (34) that is a further delivery area downstream of a last roll stand, wherein an upper part of the partition above the strip (10) extends up to a stand platform and a lower part of the partition below the strip (10) extends down to base plate;

subjecting the strip (10) to a gas under pressure at a right angle to the strip surface from above and from below via blast nozzles (23) provided on the ends of the partition (12, 13) facing the strip and on the components (14, 15, 16, 16', 17, 17') of the partition and sealing across the entire strip width a gap (30) between the ends of the partition (12, 13; 14, 15) facing the strip and the upper and lower strip surfaces by a cushion of a compressed gas buffer generated by the gas under pressure, wherein the gap has a width of 0.1 to 1 mm;

guiding the compressed gas (33) away above and below the strip (10) parallel to the strip surface in the form of a split flow (32) in the direction toward the rolling mill or the damp area (35) and of a split flow (31) in the opposite direction toward the dry area (34).

9. The method according to claim 8, wherein, in the step of guiding, the compressed gas (33) is applied at a pressure of 1 to 10 bar from below and above onto the strip surface.

10. The method according to claim 8, wherein the gas is air.

11. The method according to claim 8, wherein the width of the gap is 0.2 mm.

12. The method according to claim 8, wherein the thickness of the rolled strip is less than 0.2 mm.

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13. A device for drying and keeping dry rolled strip up to 10 mm thickness in a delivery area of cold-rolling and strip-rolling plants, by arranging a partition in the delivery area for separating a damp area (35) of the rolling mill from a dry area (34) that is a further delivery area downstream of a last roll stand, wherein an upper part of the partition above the strip (10) extends up to a stand platform and a lower part of the partition below the strip (10) extends down to base plate; by subjecting the strip (10) to a gas under pressure at a right angle to the strip surface from above and from below via blast nozzles (23) provided on the ends of the partition (12, 13) facing the strip and on the components (14, 15, 16, 16', 17, 17') of the partition and sealing across the entire strip width a gap (30) between the ends of the partition (12, 13; 14, 15) facing the strip and the upper and lower strip surfaces by a cushion of a compressed gas buffer generated by the gas under pressure, wherein the gap has a width of 0.1 to 1 mm; and by guiding the compressed gas (33) away above and below the strip (10) parallel to the strip surface in the form of a split flow (32) in the direction toward the rolling mill or the damp area (35) and of a split flow (31) in the opposite direction toward the dry area (34); the device comprised of:

a stationary partition (12, 13) stationarily arranged above and below the strip (10) and having an upper part (12) above the strip (10) extending up to the stand platform and having a lower part (13) below the strip (10) extending down to the base plate;

a movable partition (16, 16', 17, 17') comprising frames (14, 15) configured to extend the stationary partition (12, 13) to a location closely above and below a strip surface of the strip;

blast nozzle bars (18, 19) arranged at ends (16', 17') of the movable partition facing the strip and extending across the entire strip width;

the blast nozzle bars (18, 19) having blast nozzles (23) oriented perpendicularly relative to the strip surface and blast nozzle surfaces facing the strip and extending parallel to the strip surface and configured to create a seal, across the entire strip width, in a gap (30) between the ends of the partition (12, 13; 14, 15) facing the strip and the upper and lower strip surfaces by a cushion of a compressed gas buffer generated by a gas under pressure ejected by the blast nozzle bars (18, 19).

14. The device according to claim 13, wherein a length of the blast nozzle bars (18, 19) corresponds at least to the strip width and a width of the blast nozzle bars (18, 19) is 10 mm to 500 mm.

15. The device according to claim 14, wherein the width of the blast nozzle bars (18, 19) is 60 mm.

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16. The device according to claim 13, wherein, per 1 m of blast nozzle bar length, 250 blast nozzles (23) with a nozzle diameter of 1 mm are arranged in the blast nozzle bars (18, 19).

17. The device according to claim 13, wherein the blast nozzles (23) are arranged in the blast nozzle bars (18, 19) centrally relative to the width of the blast nozzle bars and successively transversely across the entire strip width.

18. The device according to claim 13, wherein a gap (30) between the strip surfaces and the blast nozzle bar surfaces facing the strip has a width of 0.1 to 1.0 mm.

19. The device according to claim 18, wherein the width of the gap is 0.2 mm.

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